UNIT 669

BORDER FIELD STATE PARK

GENERAL DEVELOPMENT PLAN

February 1974

Resource Management Plan and General Development Plan for

BORDER FIELD

STATE PARK





EXHIBIT A

This report was prepared under the supervision of

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BORDER FIELD STATE PARK RESOURCE MANAGEMENT PLAN

and

GENERAL DEVELOPMENT PLAN JANUARY, 1974

Ronald Reagan Governor State of California N. B. Livermore, Jr. Secretary for Resources

William Penn Mott, Jr.

Director

Department of Parks and Recreation



State of California — The Resources Agency Department of Parks and Recreation

P.O. Box 2390, Sacramento 95811

DEPARTMENT OF PARKS AND RECREATION

STATE PARK AND RECREATION COMMISSION

P.O. BOX 942896, SACRAMENTO, CA 94296-0001

EXCERPTS FROM THE MINUTES OF FEBRUARY 1974 Border Field State Park Resource Management Plan and General Development Plan

It was moved by Commissioner Sokolov, seconded by Commissioner Thomson and carried, with Commissioner Berry abstaining, that the following resolution be adopted:

WHER EAS the Director of Parks and Recreation has presented to this Commission for approval the proposed resource management plan and general development plan for Border Field State Park; and

WHEREAS this reflects the long-range development plan so as to provide for the optimum use and enjoyment of the unit as well as the protection of its quality;

NOW, THEREFORE, BE IT RESOLVED that this Commission approves the Department of Parks and Recreation's "Resource Management Plan and General Development Plan for Border Field State Park", dated January 1974, subject to such environmental changes as the Director, with the approval of the Commission shall determine advisable and necessary to implement carrying out the provisions and objectives of said plan.

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SUMMARY

Border Field State Park is a 670-acre parcel of land situated in the extreme southwest corner of California. Most of this land is made up of salt marsh, a lagoon, and tidal mud flats. The state proposes to preserve this ecological system in as natural a condition as possible.

A careful analysis of the resources within the unit indicates that some of the land outside the lagoon and marsh area can accommodate high- and moderate-intensity recreation use.

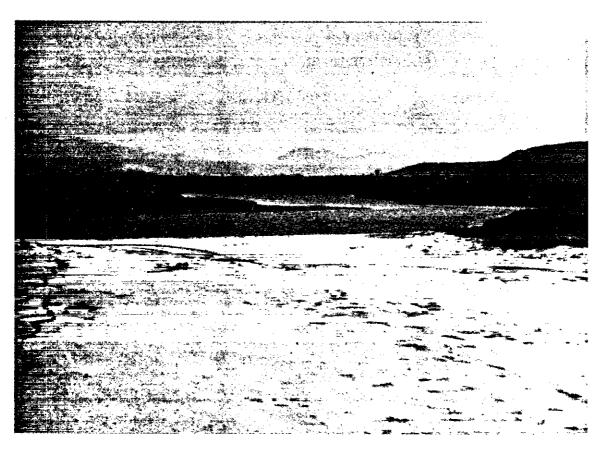
Day-use facilities will be oriented primarily to the beach, where swimming, surfing, fishing, and picnicking can be enjoyed. A small day-use facility on Monument Mesa will include interpretive and picnicking facilities.

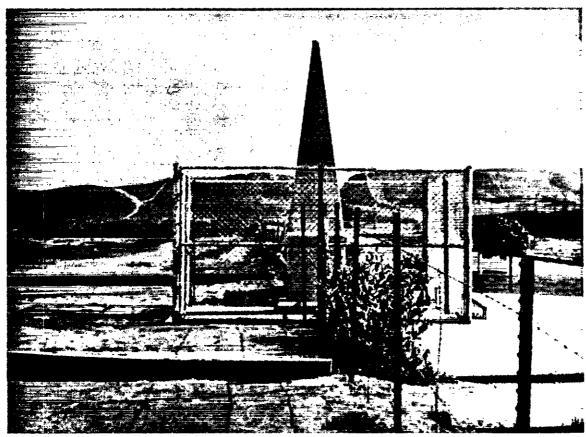
Overnight use facilities will consist of 40 camp units in Goat Canyon about a mile inland from the sea and out of the lagoon and marsh area.

When fully developed, this unit will accommodate an annual attendance of approximately 324,000.

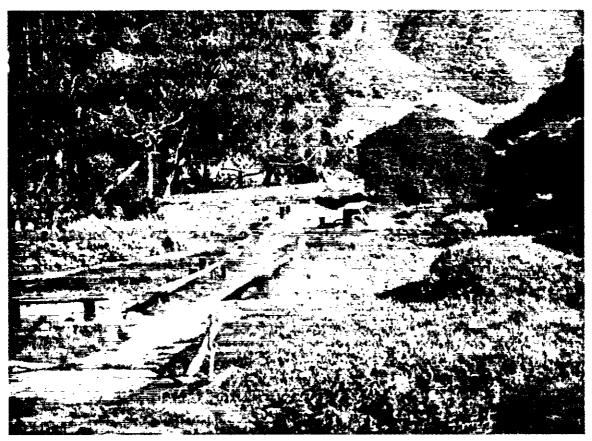
Planned Development

Type of facility	Amount
Camp units	40
Parking spaces	
(serving beach day use)	280
Parking spaces	
(serving interpretive facilities)	100
Trails	2 miles





Above, border monument



Site of proposed campground in Goat Canyon

Chapter I INTRODUCTION

Border Field State Park is located in the extreme southwest corner of the state. The park's southern boundary is the United States/Mexico border, and its western boundary is the Pacific Ocean. It comprises approximately 670 acres of land. One parcel of 390 acres is owned in fee by the State of California, Department of Parks and Recreation; an additional 280 acres are leased on a year-to-year basis from the U.S. Navy.

Access to the unit is from Interstate 5 interchanges at Palm and Coronado avenues in

the City of Imperial Beach via Nineteenth Street and Monument Road.

The 390 acres owned in fee include 6,000 linear feet of sandy beach (about 30 acres); about 320 acres of coastal flood plain containing an arm of the lagoon and salt marshes; about 30 acres of steep slopes at the edge of the flood plain; and about 10 acres of flat plateaus overlooking the flood plain. All of the 280-acre leased parcel consists of a portion of the lagoon and salt marsh lands.

The leased property of this park unit is separated from the owned-in-fee property by

private lands that contain the mouth and main channels of the lagoon.

The combination of the lagoon, the coastal strand, the beach, the salt marshes, and the

tidal mud flats represents a natural resource of highly significant value.

Border Field State Park is within the South Coast Subprovince of the Coastal Strip Landscape Province. It is nestled between the slightly higher plains at Imperial Beach and the bluffs at the Mexican border. Easterly, the terrain rises gradually along the flood plain of the Tijuana River.

The heart of the project area is the lagoon and marsh area located at the mouth of the Tijuana River. It is separated from the ocean by low sand dunes and a sand beach (strand). The lagoon is small, but it has been only slightly modified. This untouched quality is probably unique in southern California, since most lagoons and estuaries in this region have been developed as harbors and for other uses. Some development has taken place around the lagoon which has undoubtedly reduced its size. Present developments to the north are encroaching further on the area.

The salt marsh is a sensitive ecological community that is easily damaged. Development taking place on the northern end from the city of Imperial Beach could adversely affect this marsh either directly through encroachment or indirectly through pressure to modify it to keep down the mosquito population. However, at the present time, the lagoon and its associated saltwater marsh are quite natural and possess significant scenic values. Because of their unmodified condition, they provide feeding and resting areas for many species of waterfowl, shore birds, raptors, and other birds. The lagoon and marsh also support a number of invertebrate and vertebrate species, a feature that makes these habitats very attractive to those interested in natural history.

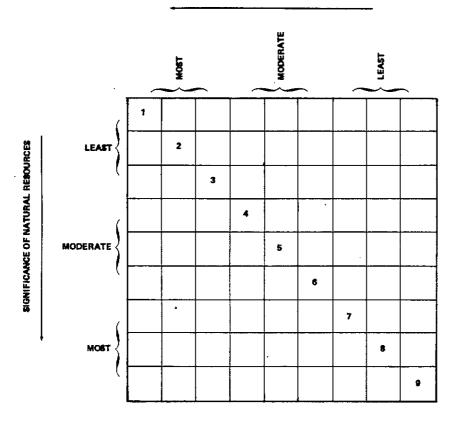
The ocean view from the area is quite spectacular. The steep bluffs of the Coronado Islands can be seen downcoast, and, on a clear day, the islands to the north are also visible. The bluffs at the border make an excellent vantage point. Just below and to the north of the bluffs is an area that becomes flooded with fresh water after a rain. During the winter and spring, this flooded area attracts many water birds, and these birds can easily be seen from this vantage point.

On the inland side of the lagoon, the salt marsh diminishes with the gradually rising flood plain of the Tijuana River and changes to an alkali-affected scrub savannah. A lowering of the water table and the intrusion of salt water have drastically changed former

ecological relationships on this flood plain.

Development completely surrounds the area on the inland side, with new portions of the city of Tijuana on the south, the agricultural fields of San Diego County on the east, and the Navy installation of Ream Field and the City of Imperial Beach to the north. Despite this situation, however, the marsh and lagoon are still ecologically functional and give the visitor the feeling of being in a natural environment.

ADAPTABILITY FOR DEVELOPMENT



Chapter II RESOURCE INVENTORY AND ANALYSIS

The purpose of this chapter, "Resource Inventory and Analysis," is to analyze and interrelate the natural resources within the park. The analysis will indicate those areas that have high resource values and will provide the basic rationale for the allowable use intensity plan (end of this chapter) and the general development plan (Chapter IV).

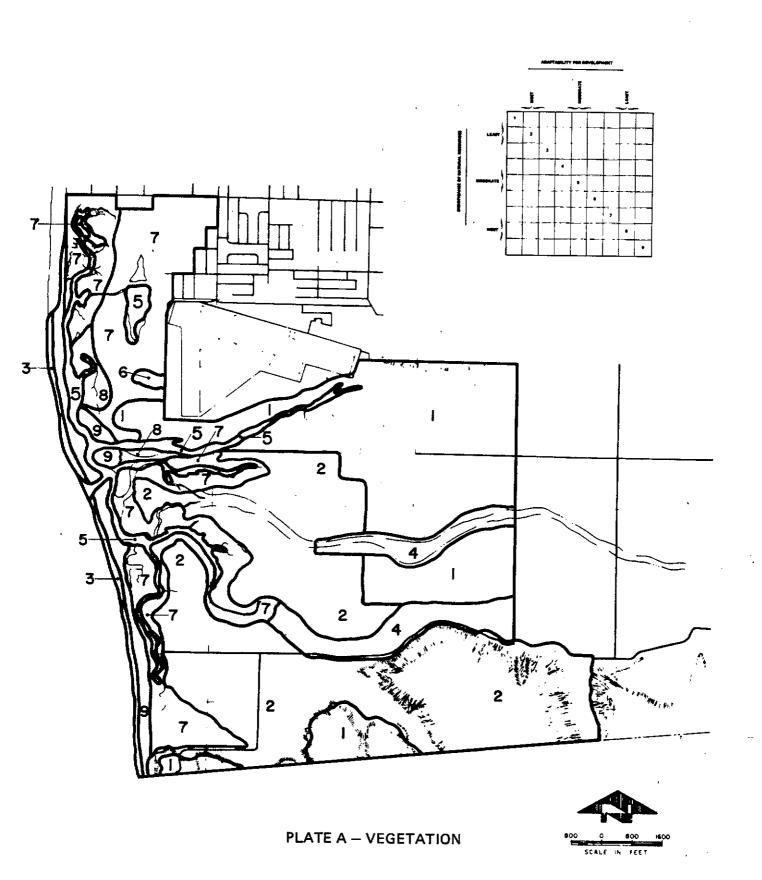
The first step of this resource analysis was an inventory of all natural resources. The resources were then evaluated, and this analysis is presented as a graphic representation of that evaluation.

The natural resources have been divided into the following aspects for evaluation purposes: vegetation, wildlife, soils, hydrology, archeology, scenic open space, and the existing intrusions by man on these six natural resources. After each of these aspects was evaluated, it was given a numeric rating, which, when combined with the numeric rating for the other aspects, provided a composite evaluation. This composite evaluation is the basis for the allowable use intensity plan at the conclusion of this resource analysis.

Each aspect analyzed was evaluated on a scale of 1 through 9, using the following criteria:

Scale

- 1. Area with greatest development potential and with limited natural resource values
- 2. Area with slightly less development potential and slightly more value for natural resource preservation than number 1
- 3. Area with slightly less development potential and slightly more value for natural resource preservation than number 2
- Area with sensitive natural resource requiring special consideration and designs for development
- 5. Area with sensitive natural resource requiring more special consideration than number 4
- 6. Area with positive value for preservation of natural resource and/or negative development potential
- 7. Area with more value for preservation of natural resource and/or less value for development than number 6
- 8. Area with more value for preservation of natural resource and/or less value for development than number 7
- 9. Area with highest possible value for preservation of natural resource and/or lowest possible development potential



Vegetation

Plate A shows the relative fragility of each plant community as determined in the resource inventory.

On a scale of 1 to 9, 9 equals very fragile, 1 equals very resistant.

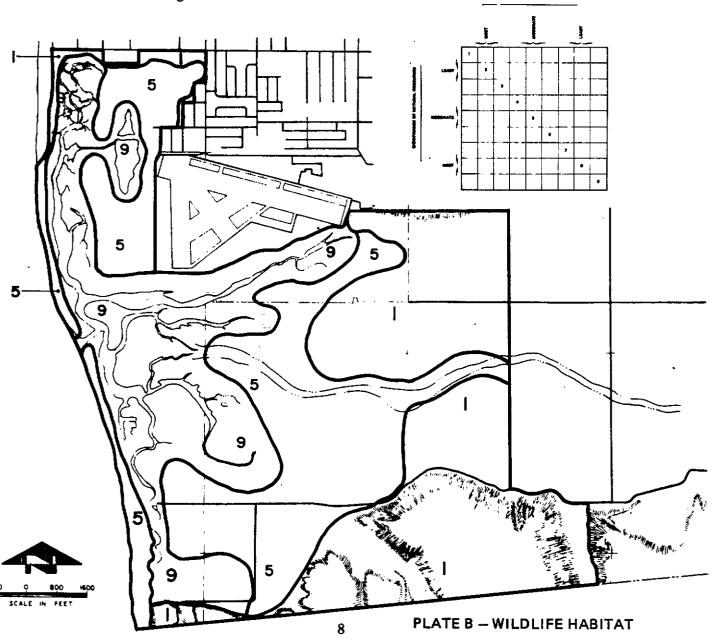
Vegetation type or biotic community	Designated valu on Plate A
Coastal strand	9
Salicornia-Frankenia Association (Pickleweed Marsh)	8
Salicornia-Distichlis Association (Glasswort Marsh)	7
Spartina-Salicornia Association (Cordgrass Marsh)	7
Brackish Water Marsh	6
Lagoon and tidal flats	5
Riparian dry wash	4
Sandy littoral	3
Rocky littoral	3
Introduced annual grassland	2
Southcoastal scrub savanna	2
Southcoastal scrub	1
Agriculture	1

Wildlife Habitat

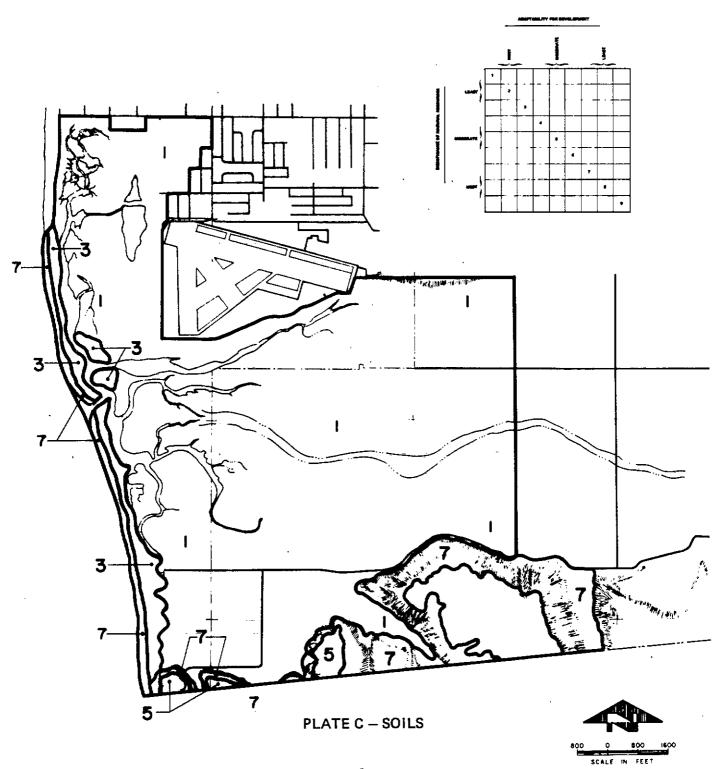
Three values were used to depict the wildlife habitat aspect. A resource evaluation of 9 was assigned to that type of wildlife habitat that is in the greatest demand by species having a narrow range suitable to their requirements; 5 to types of habitat of lesser demand due to species having a broader range suitable to their requirements; 1 to the wildlife habitat that is found abundantly elsewhere in the state and has the least limitation on total species numbers. The judgments were made by a wildlife ecologist and were based on the information obtained from the resource inventory and the field inspections.

Members of two endangered bird species are known to inhabit the area regularly. These are the least tern and the light-footed clapper rail. The north arm of the lagoon is considered the best habitat for the latter species. The sandy area with old shells near the mouth of the lagoon would be the prime nesting area of the least tern. In addition, it is possible that the black rail might also be present, although none have been seen in recent years. The brown pelican is seen flying over the area and may, on occasion, make a rest stop. Another endangered species that has been observed here on rare occasions is the peregrine falcon.

In addition to the endangered species, there are a number of birds observed here that are quite uncommon to California, including the elegant tern, the snowy plover, and the reddish and cattle egrets.

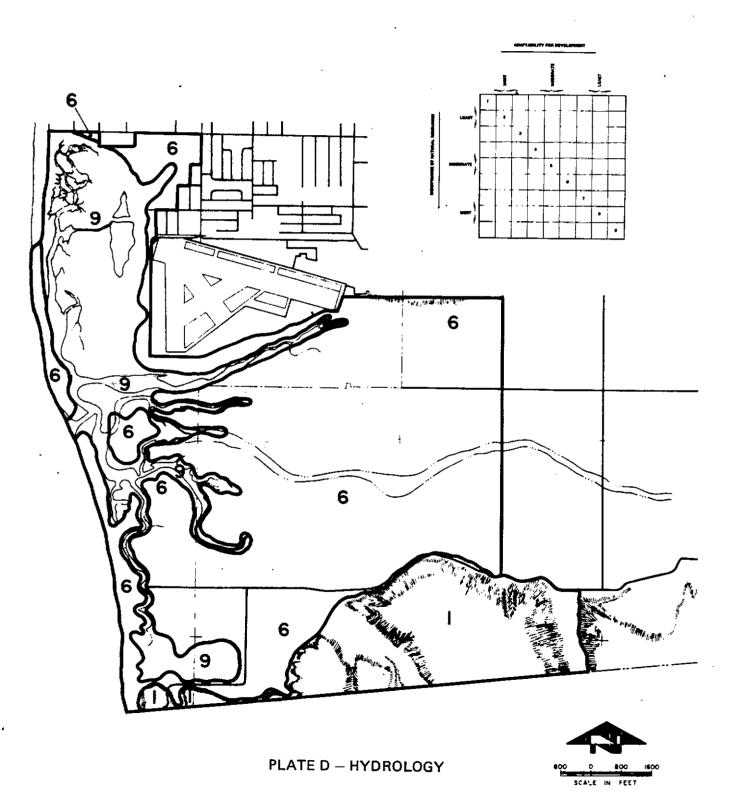


The soils aspect was analyzed on the basis of durability and fragility. A resource evaluation of 7 was assigned to the most fragile soils; 5 to somewhat less fragile soils; 3 to fairly durable soils; and 1 to the most durable soils.



Hydrology

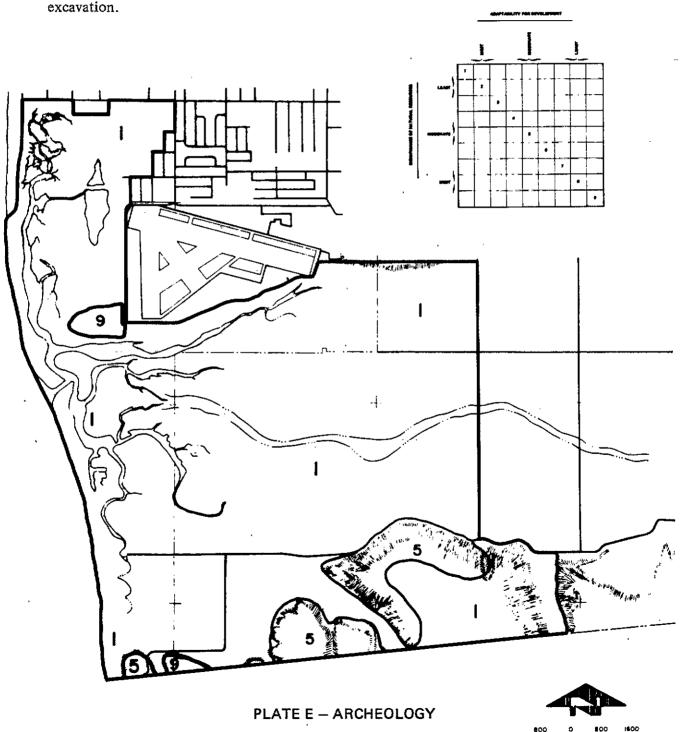
The hydrological aspect was analyzed on the basis of susceptibility of land to flooding. A resource evaluation of 9 was assigned to frequently flooded areas; 6 to infrequently (100-year) flooded areas; and 1 to areas never flooded.



Archeology

A resource evaluation of 9 was assigned to the three known archeological sites. Such sites may be developed providing the archeological features are preserved. An evaluation of 5 was assigned areas with known archeological values that have been disturbed by past excavations or to areas with suspected archeological values. An evaluation of 1 represents areas with the least archeological potential.

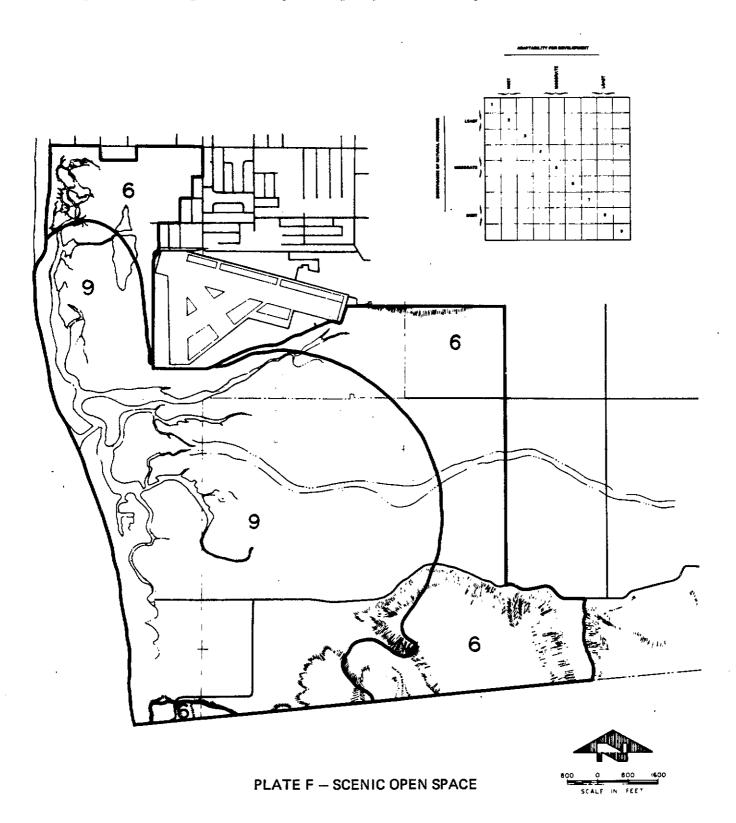
It is clear that the three sites in the Border Field Project represent important archeological value. At least two sites are estimated to be 4,000 to 6,000 years old. The third site could date to the same period. All three are worthy of preservation or extensive excavation



SCALE IN FEET

Scenic Open Space

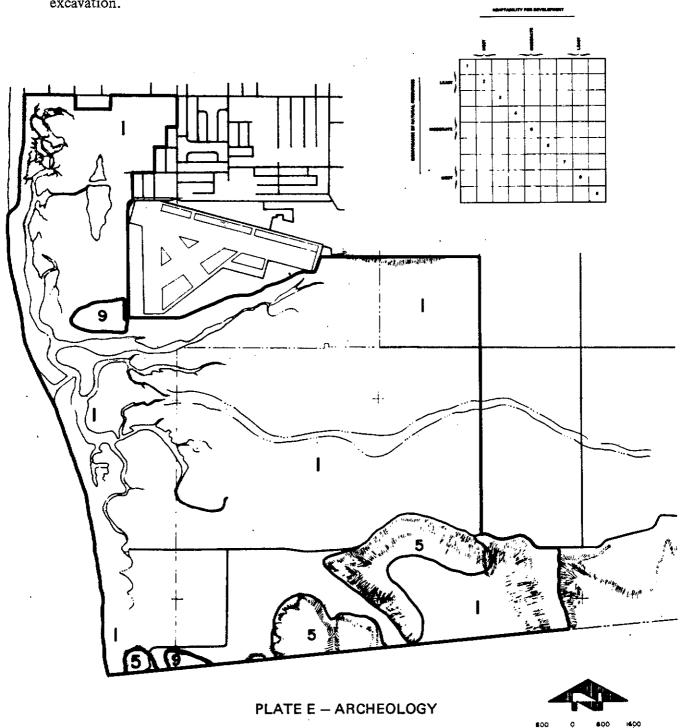
The scenic open space aspect was analyzed on the basis of the observable open space scene. A resource evaluation of 9 was assigned to the central core area of the existing open space scene; the figure 6 was assigned to open space surrounding this core.



Archeology

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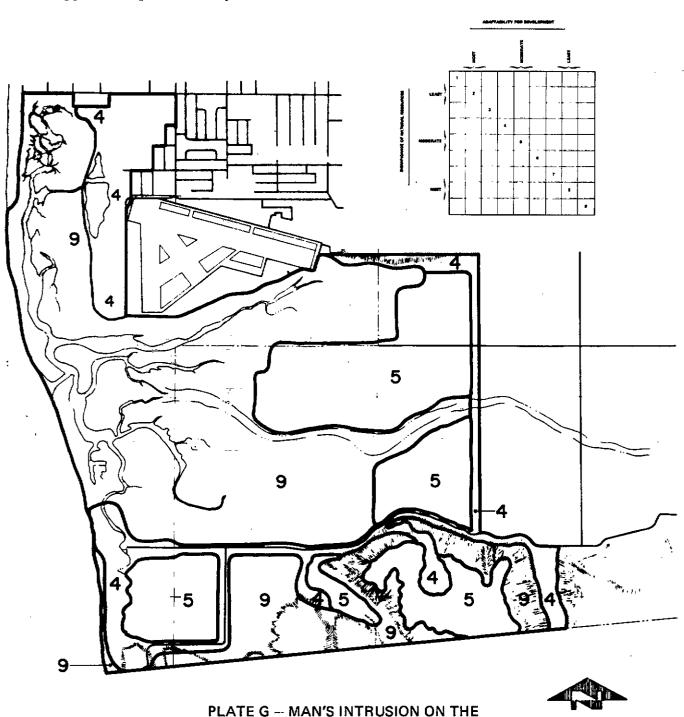
It is clear that the three sites in the Border Field Project represent important archeological value. At least two sites are estimated to be 4,000 to 6,000 years old. The third site could date to the same period. All three are worthy of preservation or extensive excavation.



SCALE IN FEET

Man's Intrusion on the Natural Resources

The aspect of man's intrusion on the natural resources was analyzed on the basis of observable intrusions, such as roads, grading, and agricultural usage. A resource evaluation of 9 was assigned to areas that are used only as lagoon and wildlife habitat and that appear to be untouched by roads and grading severe enough to have changed the land form; 5 to areas that have been used for agricultural purposes or that have roads and graded areas but have not been severely disturbed; and 4 to areas that have been most severely graded and that support main paved roadways.



NATURAL RESOURCES

Composite Map of All Aspects

To evaluate the resource base as a whole, a composite map that presents all seven aspects has been prepared. The lowest numbers represent the areas most desirable for development; the highest numbers represent the areas most desirable for preservation. In this composite map, each resource aspect has been weighted and evaluated.

The most important values of the lagoon are the ecological relationships of plant and animal life. The flora and fauna of the lagoon depend on flooding. In fact, without flooding, there would be no lagoon environment. Since it is the Department of Parks and Recreation's policy to preserve the lagoon, it was decided that no matter how the aspects averaged out in the composite, the areas of frequent inundation would be given the highest possible value for preservation of natural resources.

Since rare and endangered species of birds are present in the lagoon, the wildlife habitat aspect was doubled in value. The "intrusion by man" aspect was also doubled in value to add increased weight to those areas unmodified by man, since the preservation of the naturalness of the lagoon and marsh area is an established policy of the Department.

In summary, five of the seven aspects have been weighted equally, and the weight of the other two has been doubled. The lagoon waters were assigned an absolute preservation value. The five equally weighted aspects are archeology, scenic open space, soil fragility, vegetation, and susceptibility to flooding.

This weighted and combined evaluation of the resource aspects can be used for the general purpose of determining suitability of land for development. The conclusions drawn here from the weighted and combined resource aspects are as follows:

- 1. Averages from 1 through 3 indicate lands most suitable for development with no great value for natural resources preservation.
- 2. Averages from 4 through 6 indicate sensitive areas that require special considerations if developed.
- 3. Averages from 7 through 9 indicate high values for natural resources preservation or lands not suitable for development.

PLATE H - COMPOSITE MAP OF ALL ASPECTS

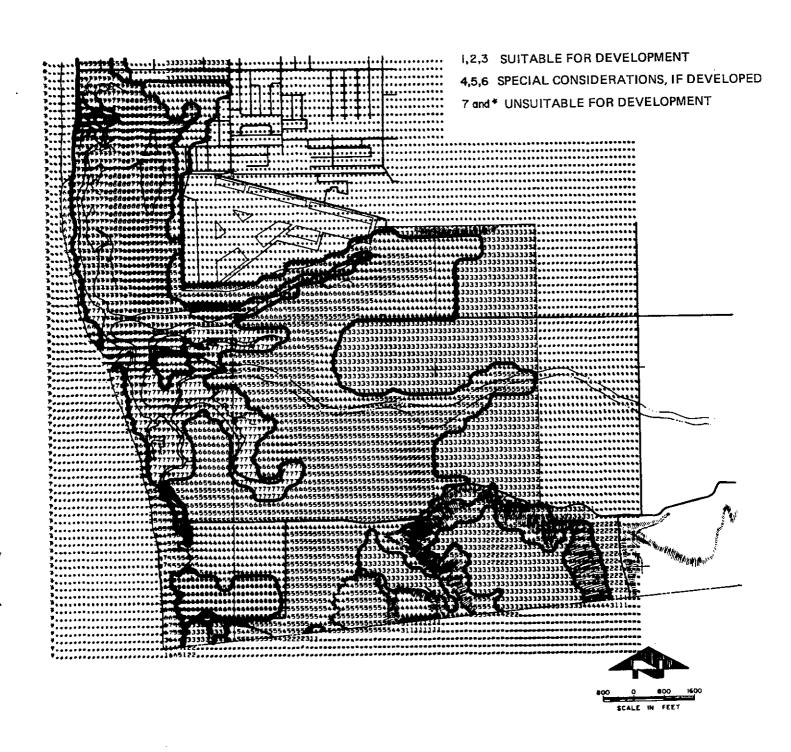
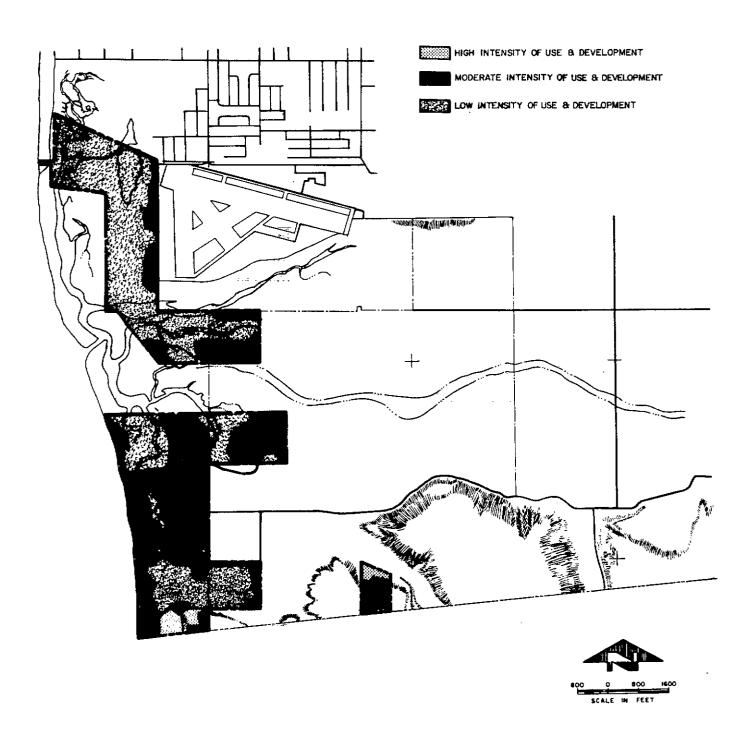


PLATE I -- ALLOWABLE USE INTENSITY



Allowable Use Intensity Plan

The analysis of resources encompasses the entire land mass of the Tijuana flood plain, while the allowable use intensity plan covers only those lands that are now within the jurisdiction of the State Park System.

The allowable use intensity plan was derived directly from the resource evaluation composite (Plate H). The areas with numbers 1 through 3 — those with the lowest composite resource values and the highest composite values for development — were assigned the highest allowable use intensity ratings. The figure of 30 or more persons per acre is considered to be high use intensity for the purposes of this plan. Specifically, in terms of recreation development, this requires the spacing of picnic tables or campsites a distance of 30 to 35 feet apart. High use intensity on beaches means 100 square feet per person or 435 persons per acre.

Areas numbered 4 through 6, indicating moderate resource values as well as moderate values for development, have been designated areas of moderate allowable use intensity. The accommodation of 8 to 30 persons per acre is considered to be moderate use intensity for the purposes of this plan. In terms of recreation development, moderate use intensity requires picnic tables or campsites to be located about 100 feet on center. This generally accepted spacing standard of four sites per acre generates a use intensity of 16 to 30 persons per acre.

Areas numbered 7 through 9 — those with the highest composite resource values and the lowest composite values for development — have been designated areas of low allowable use intensity. A figure of 8 persons or less per acre is considered to be low use intensity for the purposes of this plan. Low use intensity areas most probably contain rare and fragile resources that can be destroyed by higher intensity use. Such areas may also contain hazards. In terms of recreation development, low use intensity regions are suited to trails for hiking, nature study areas, or primitive camp or picnic sites with no more than one site per acre.

Chapter III RESOURCE MANAGEMENT PLAN

This new unit of the State Park System is an area of great importance from the standpoint of protecting natural and cultural values. It is also important from the standpoint of providing ocean-oriented recreational opportunities along the several miles of beach extending northward from the international boundary.

From earliest times the area proposed for eventual inclusion in this unit of the State Park System consisted of the coastal strand within the uplands embracing the mouth of the Tijuana River, the lagoons, salt marshes, freshwater marshes, river bottom lands, the river bed, dry river bluffs, and associated mesa tops, all functioning together as an ecological entity. Climatological factors are believed to have been comparable to those which exist today. Major ecological changes since prehistoric times are those having been introduced by European man since the mid-sixteenth century.

The Tijuana River lagoon and related lands comprise the only nearly complete ecological entity of this kind remaining in southern California. This area still retains virtually all the elements that originally characterized it. Modifications by man are relatively few and have had very little impact on the resources within this unit. It possesses probably the only location in the United States where certain plant species occur. This unit provides habitat for at least two rare and endangered bird species and has within it examples of saltwater and freshwater marshes, now becoming rare. Its location in an international urban area lends immeasurable importance to the unit because of the opportunities it provides for public education and enjoyment.

Physical characteristics of the area are essentially geological features, including the river waters, the ocean waters, the coastal strand, the sub-surface elements of the hydrosphere, the eroded soils, and the upland physiographic characteristics, which led to the establishment of the mouth of the river at this location. The combination of geological factors that led to the establishment of this river mouth and lagoon at this location are particularly rare in southern California and are of value for both public enjoyment and education.

Primitive man occupied sites in the vicinity of the Tijuana River lagoon for the same reasons that modern man finds it attractive and valuable today. The climate is equable and agreeable; fresh water is available; food is abundant from the sea and from the lagoon, as well as from the land; upland sites are available for development; and the hinterlands provide additional area for food gathering, living, recreation, and related human activities. There are three known Indian sites within the unit. It is important that we protect these sites, so that if and when the opportunity arises they may be scientifically investigated and their story fully recorded. The history of the international boundary between the United States and Mexico is a fascinating one, and this unit of the State Park System presents the best opportunity for the California Department of Parks and Recreation to interpret that story to the public and to make available associated artifacts.

The Tijuana River is one of the larger streams that enters the ocean along the southern California coastline and as such provides a fine opportunity to present the story of the evolution of lagoons.

Details of the resources and their individual values are included in the "Resource Inventory and Analysis" section of this document.

The statutory requirements of the classification "state park," as applied to this unit, are as follows: to preserve the outstanding natural, scenic, and cultural values, the indigenous aquatic and terrestrial fauna and flora, together with the significant historical, archeological, ecological, geological, and scenic values of the area; and to provide for those public outdoor recreational activities that are consistent with the preservation of the natural, scenic, cultural, and ecological values of the area.

Declaration of Unit Purpose

Border Field State Park is established to protect, restore, perpetuate, and make available to all the people the outstanding combination of resources and values that is located in the floodplain and on adjacent uplands at the mouth of the Tijuana River, in the extreme southwestern corner of California. These values, with their related objectives, are as follows:

- 1. To protect, restore, and perpetuate the scenic features and ecological integrity of the large and extensive lagoon system at the mouth of the Tijuana River, together with its relationship to the ocean and marshlands, with transitional stages extending inland from the sea to and beyond the landward limit of the lagoon complex; and to enhance the public's awareness and understanding of this important physical and ecological feature.
- 2. To protect, restore, and perpetuate the integrity of the coastal strand with its beaches, embracing the natural mouth of the Tijuana River lagoon.
- 3. To identify, protect, and perpetuate all areas of botanical significance, including any and all rare and endangered species, together with the ecological integrity of such areas.
- 4. To identify rare and endangered animal species which find their habitat within the area of the park, including but not limited to the light-footed clapper rail and the least tern; to provide for the protection and perpetuation in their natural and viable state of the habitats required by these species; and to enhance public knowledge and understanding of the importance of these species and their habitats in the California environment.
- 5. To protect from disturbance or deterioration all archeological sites known or discovered within the unit until it is professionally determined that their values have been fully recovered and recorded.
- 6. To develop and make accessible the American side of the international boundary with Mexico along the southern part of this unit, including the monuments and markers, both old and new, that have been or may be erected as a part of the boundary survey and identification.
- 7. To make available and to develop the recreational opportunities presented by the beach and strand, the mesas with their scenic views, the marshlands and waterways, while providing for their ecological protection; accomplishing these things in such a manner that the natural and cultural values previously enumerated are neither damaged from construction nor permitted to deteriorate from human impact; all in accordance with Section 5001.5(c), Public Resources Code.

Declaration of Management Policy

The natural values of Border Field State Park are its most important resources, and the management undertaking will have as its primary objectives (1) the restoration of those values where they have been impaired by the activities of modern man; and (2) their perpetuation in relationship to ongoing recreational and interpretive uses.

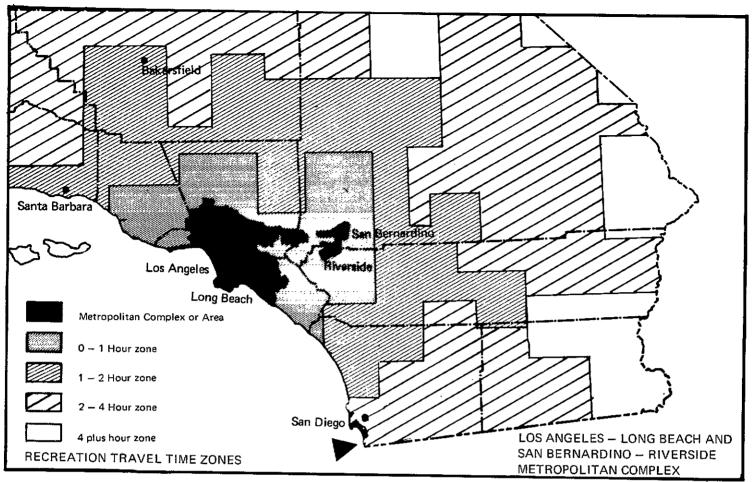
The lagoon with its shorelands and related marshlands is an ecological entity and will be studied, protected, managed, and interpreted accordingly. No public use or development which poses a known threat to the integrity of the lagoon ecosystem will be permitted; and uses which are shown to damage or threaten the lagoon ecosystem will be stopped.

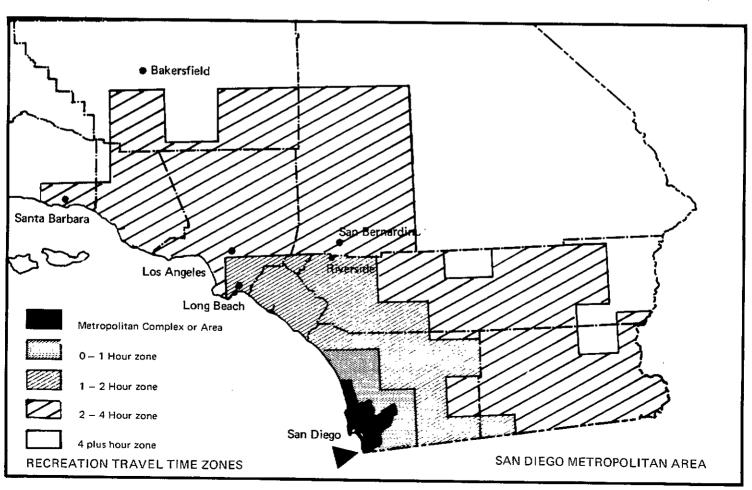
Special attention will be given to the occurrence of rare or endangered plant or animal species, wherever they occur, and all management actions which are required for the reestablishment or protection of viable habitats for them will be undertaken.

Natural values within the park will be used, interpreted, protected, and managed in accordance with the "Resource Management Directives" of the Department. Interpretive emphasis in relationship to the natural values will seek to achieve the full enjoyment of knowledge and understanding in participating visitors and will seek to encourage among visitors a desire to protect them while enjoying them.

The cultural values of the park are important in achieving among modern Californians an understanding of man's beginnings in California, of our early relationships with neighboring Mexico, and of the role of the American military in this part of California. The details of cultural remains, both prehistoric and historic, will be sought by careful investigation and research and will be professionally evaluated and recorded. No archeological site, whether previously known or found in the course of operation and development procedures, will be modified or destroyed until professional evaluation and study have been completed, and the Director has made a finding that its intrinsic values are adequately preserved for interpretive and scientific purposes. Similarly, historic features existing within the park will be professionally studied, evaluated, and recorded; and no modification will be made until the Director has made a finding as to the proper disposition of such historic features. Cultural resources within the park will be used, interpreted, protected, and managed in accordance with the "Resource Management Directives" of the Department.

The acquisition, development, management, and operation of Border Field State Park will be carried out in accordance with Section 5001.5(c), Public Resources Code. Appropriate recreational facilities will be established, constructed, and operated in order to enhance the enjoyment by the public of the natural and cultural values of the park, in contrast to being developed as attractions in themselves.





Chapter IV GENERAL DEVELOPMENT PLAN

Need for the Project

Border Field State Park is located within the zero-to-one-hour travel time zone of the San Diego metropolitan area. It is also located within the two-to-four-hour travel time zone of the Los Angeles metropolitan complex (Los Angeles, Orange, Riverside, and San Bernardino counties).

The estimated and projected populations for these metropolitan centers are as follows:*

	1970	1980	1990
Los Angeles metropolitan complex	9,622,900	11,043,900	12,963,500
San Diego metropolitan area	1,358,500	1,790,800	2,253,100

^{*}Department of Finance, Population Estimates for California Counties, Advance Report, August 18, 1972, Provisional Projections to 2000. September 15, 1971. Projections include assumed military populations.

The recreation demand for the residents of these metropolitan areas is increasing faster than the population growth. For example, while the population of the Los Angeles metropolitan complex will increase approximately 35 percent between 1970 and 1990, the recreation demand of its residents is expected to increase 48 percent or 1.37 times the population growth during the 20-year period.

The new facilities needed for all suppliers to meet the existing and future recreation demands of these metropolitan centers within their respective travel time zones are as follows:

	1970	1980	2000
Zero-to-one-hour travel time zone			
San Diego metropolitan area			
Camp units	362	522	782
Picnic units	2,074	2,724	4,484
Hiking trails (miles)	30	62	123
Horseback riding trails (miles)	181	216	324
Two-to-four-hour travel time zone			
Los Angeles metropolitan complex			
Camp units	9,162	11,572	19,582
Picnic units	3,315	5,295	10,125
Hiking trails (miles)	 -	·—	404
Horseback riding trails (miles)		620	1,233

During the summer of 1969, a study was made of visitor use in coastal units of the California State Park System. This survey was made by means of personal interviews with park visitors.

According to the survey along the southern coast, three activities stand out as being important to the majority of visitors to parks: beach use, swimming or wading, and walking for pleasure. Activities that claim the next most frequent participation are surfing,

picnicking, sightseeing, and photography or painting. Beachcombing and fishing are important to about 10 percent of the visitors. Miscellaneous activities that involve less than 10 percent of the visitors are horseback riding, beach vehicle riding, hiking, skin or scuba diving, boating, water-skiing, viewing interpretive exhibits and programs, amusement or fishing pier use, eating out, nature study, and just relaxing.

Border Field State Park is especially well suited to provide all activities favored by more than 10 percent of the visitors surveyed. Beach use, swimming or wading, and walking for pleasure are especially appropriate in this beautiful expanse of lagoon, salt marshes, and beach.

Border Field – Planned Development

Border Field State Park is accessible from the Interstate 5 interchanges at Palm and Coronado avenues. These interchanges are about three miles from the park via Nineteenth Street and Monument Road.

The area that is leased from the U.S. Naval Facility provides trails for equestrian and pedestrian access.

The Allowable Use Intensity Plan establishes the development program for this park by indicating the desirability of preserving the resources of the lagoon and salt marshes and those found in the surrounding plant and animal communities.

The areas of highest allowable use intensity are located in the extreme southwest corner of the park unit, and it is here that the recreation facility development will be centered.

Beach Use

One of the main problems in planning for beach development is the extreme contrast in allowable use intensity between the beach and the lagoon and marsh area. The beach will accommodate 400 persons per acre without harm to the natural resources, but the lagoon will accommodate only eight persons per acre satisfactorily.

Since the vast majority of visitors to this park unit will participate in beach-oriented activities, direct access to the beach is a critical consideration. However, development for parking could cause damage to the fragile lagoon system. The only way to protect the lagoon is to provide parking on the coastal strand directly adjacent to the beach.

The design concept of this parking area involves the least possible scenic intrusion. A hard surface for cars to drive and park on and low barriers to keep cars within the parking areas are all that is required. The surface color and texture of the parking area would be similar, if not identical, to the native sand, and there would be no striping for car spaces. Thus, when empty, the parking area would not be recognizable as such. The concept for structures at the beach recreation development is "low profile," and building materials would blend with the beach-lagoon environment.

Monument Mesa

Monument Mesa is located in the southwest corner of the park and is thus adjacent to the United States-Mexico border. On this mesa stands a marble shaft marking the initial point of the international boundary between the United States and Mexico. The survey of the international boundary agreed upon in the Treaty of Guadalupe Hidalgo began at this point in 1849.

Monument Mesa overlooks most of Border Field State Park and is therefore an ideal spot for interpretation of the park's natural and cultural resources. Because of its vantage point, the mesa provides an excellent area for orientation of the park visitor to the ocean and lagoon.

The area around the border monument is an unpleasant sight. On the U.S. side the earth is bare in contrast to the nicely landscaped monument area on the Mexico side.

Development of the mesa should be directed to beautification of the area through the use of turf for picnic sites, tree and shrub plantings for shade and beauty, a fence that is

physically a barrier but pleasant to look at and through, interpretive displays, a parking area, and pleasant walkways to all facilities, including the beach.

The mesa frontage contains some rare plant species that should be preserved.

Campground

The 22-acre parcel that is designated for camping use at Border Field State Park was leased to the Department of Parks and Recreation by the U.S. Navy in 1972. This parcel is adjacent to the United States-Mexico border but is not contiguous to the main part of the park. The campground parcel consists mostly of steep hillsides. At the toe of these hillsides, however, there is a five-acre flat featuring scattered eucalyptus trees and a creek. This flat area was formerly used as a Boy Scout camp. Access is from Monument Road (a county road). The development proposed is to provide fairly dense camping facilities on the flat area and improvement of trail access up the hillsides to the areas at the top, which provide an excellent view of the Tijuana flood plain.

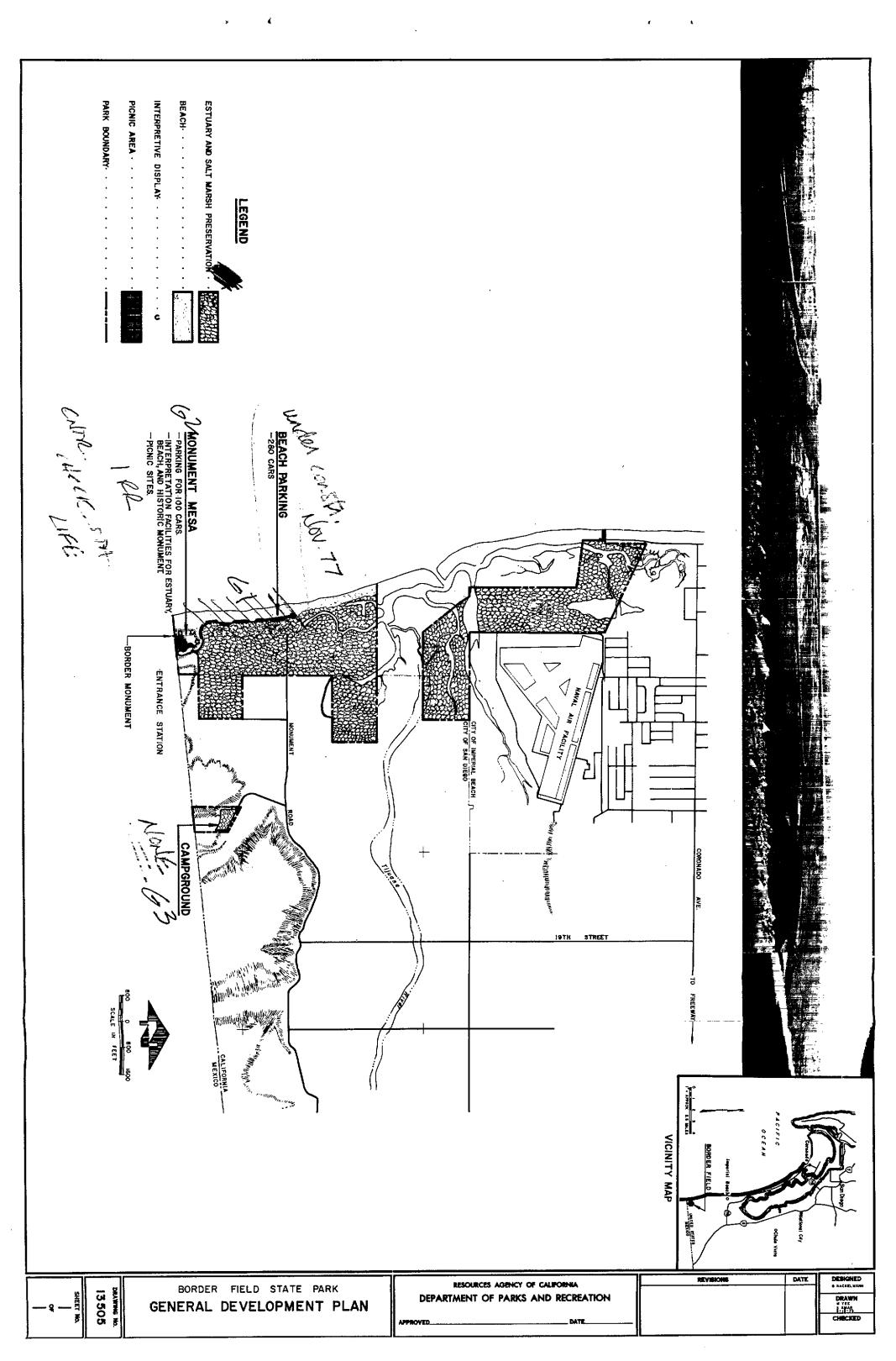
Utilities

Sewerage. Sewage service for Border Field State Park is available from the City of San Diego. However, since the extension required would be more than two miles long, it is felt that it is not economically feasible to connect the park to the city. The possibility of using a leaching system as a means of sewage disposal has also been ruled out. The strand area in which the sewage would have to be leached is low and too close to the high tide line to permit leaching. The recommendation is that development include low-flush recirculating-type sanitary facilities.

Water. Water is available from the City of San Diego on Monument Road at the north side of Smugglers Gulch. The line extension to meet the fire requirements to the City of San Diego would be 12 inches in diameter to a central metering point or multiple metering points within the project area. The extension would be approximately 12,000 feet long. The additional cost of installing the oversize line would be the subject of a reimbursement agreement to cover repayment from the city as additional users are connected.

Electricity. Electric power is available from overhead 12,000-volt lines at the project boundary and in the project area. These lines would be extended underground to those areas that require electric service.

Telephone service. Telephone service is available at the project boundary from existing area lines. These lines would be extended underground to those areas requiring telephone service.



Chapter V ENVIRONMENTAL IMPACT REPORT

The objectives of the project are twofold: first, to provide for public enjoyment of the Tijuana flood plain and associated lands through the development of access routes and recreational facilities; second, to preserve the lagoon environment in as natural a state as possible.

Environmental Impact of the Proposed Action

The greatest impact on the area will result from the construction of the beach access road, beach parking spaces, and beach comfort stations. All three of these features will be visible from Monument Mesa. The cars on the road and the comfort stations will be visible from the valley itself.

The construction on the mesa will in one sense have as great an impact, since it is more highly concentrated than the beach development. However, the fact that the mesa development will be localized in one small area that is 50 feet above the valley floor diminishes its impact.

The significant construction in the overnight area will consist of the access road and parking space. This will require clearing and grading of about 18,000 square feet. The existing campground will require only area cleanup and the installation of camp furniture. The primary impact on the area will occur during construction.

Heavy equipment, material deliveries, and workmen will be involved in grading, paving, trenching, and building for several weeks. This will cause noise and visual pollution during construction.

The secondary impact on the area will be the result of intensified public use.

The existing parking lot at the end of Monument Road accommodates about 400 cars. This lot fills up a few times during the summer, generally on holiday weekends. It is anticipated that, even though the proposed day-use parking area will accommodate only 380 cars, the visitor use will increase substantially. The impact on the environment as a result of this increase in use will appear as increased litter, destruction of vegetation, interference with wildlife habitat, and noise, air, and visual pollution.

Any Adverse Environmental Effects That Cannot Be Avoided If the Proposal Is Implemented

- A. The proposed development will alter the landscape.
- B. The increase in visitor use will cause:
 - Increased litter within the area
 - 2. Destruction of vegetation
 - 3. Disturbance of wildlife habitats
 - 4. Noise pollution
 - 5. Air pollution
 - 6. Visual pollution

Mitigation Measures Proposed to Minimize This Impact

The six adverse environmental effects attributed to increased visitor use will be mitigated through an increase in maintenance personnel and an extensive interpretive program that will inform the public of the values within the lagoon and the need to preserve these values. An integral part of the interpretive program will be a well-defined trail system to allow the public to view the lagoon and its wildlife without harming these resources. Care will be taken to keep visitors out of specific nesting areas.

The beach road and parking area will be designed and constructed to produce a minimal impact on the scene. The parking area will be of linear design, and the surface of the road and parking area will be of a tough, durable pavement with a natural appearance. In addition, the area on which these facilities are to be constructed is generally flat and will

require a minimum of earthmoving.

The campground roads and parking area will be designed and constructed in a manner similar to that used for the beach development. The access road will follow an existing alignment and will require minimum grading. The parking facility will require balanced cuts and fills of up to 4 feet. The earth to be moved will not exceed 2,000 cubic yards. The proposed development extends 1,000 feet into Goat Canyon, well out of the marsh and lagoon, and will therefore not alter any of the natural preserve area.

Because of its separation by elevation from the marsh, developments on Monument Mesa will have no visual effect on the lagoon. Furthermore, the proposed development is compatible with the border fence, the monument, and the intense development on the

Mexican side of the border.

Beach comfort stations will be constructed of slumpstone, with mission tile roofs. This design will harmonize with the Mexican culture.

All water and electrical transmission lines will be placed underground.

Alternatives to the Project

Consideration was given to retaining the existing parking area at the west end of monument road or constructing a new area of equal size adjacent to the entrance road at the southeast corner of our property in lieu of constructing the beach parking area. Both of these alternatives fell within the flood plain and were therefore rejected.

The only other alternative is to abandon the project.

The federal government included the following conditions within the deed: "This property shall be used and maintained for public purposes for which it was conveyed in perpetuity as set forth in the program of utilization and plan contained in the application, submitted by the grantee on June 17, 1971."

Relationship Between Short-Term Use and Long-Term Productivity of the Environment

The Department of Parks and Recreation is aware of the value and fragility of the lagoon, and its prime concern is the preservation and enhancement of this lagoon. This Department intends to maintain the lagoon environment in maximum ecological productivity and diversity.

> Any Irreversible Environmental Changes as a Result of the Proposed Project

None

Growth-Inducing Impact of the Proposed Project

None